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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,991	01/05/2001	James E. Flowers	CSAY-0020	4733

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EXAMINER

CUEVAS, PEDRO J

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 03/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/755,991

Applicant(s)

FLOWERS, JAMES E.

Examiner

Pedro J. Cuevas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 8-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 15-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-7 & 15-21, drawn to a module, classified in class 310, subclass 348.
 - II. Claims 8-14, drawn to a method of manufacturing a circuit module, classified in class 29, subclass 825.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case a different circuit module can be built with the claimed process by using parts with a different number of terminal sets, each having a different number of terminals, or using different SAW circuits capable of filtering signals in a different band of communication frequencies.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.
5. During a telephone conversation with David Hitt on January 10, 2002 a provisional election was made to prosecute the invention of I, claims 1-7 & 15-21. Affirmation of this

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election must be made by applicant in replying to this Office action. Claims 8-14 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Drawings

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 245 and 305. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

7. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Hermetically Sealed Dual-Band Surface Acoustic Wave Circuit Module.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 2, 4-7, 15, 16 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,939,817 to Takado in view of U.S. Patent No. 5,786,738 to Itaka et al.

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Takado discloses a module, comprising a hermetically-sealable shell (20) having first and second terminal sets (35a), and a lid (21) coupled to said shell and forming an enclosure a SAW circuit.

However, it fails to disclose a module having a first surface acoustic wave (SAW) circuit, located within said shell and couplable to said first terminal set, that filters signals in a first band of communications frequencies; and

a second SAW circuit, located within said shell and couplable to said second terminal set, that filters signals in a second band of communications frequencies.

Itaka et al. teaches the construction of a duplexer having:

a first surface acoustic wave (SAW) circuit (33a), located within said shell and couplable to said first terminal set, that filters signals in a first band of communications frequencies; and

a second SAW circuit (33b), located within said shell and couplable to said second terminal set, that filters signals in a second band of communications frequencies for the purpose of providing a multi-layer ceramic package with filter chips having different central frequencies.

It would have been obvious to one skilled in the art at the time the invention was made to use the duplexer disclosed by Itaka et al. on the module disclosed by Takado for the purpose of providing a multi-layer ceramic package with filter chips having different central frequencies.

10. With regards to claims 2 and 16, Itaka et al. discloses a module wherein said first band of communications frequencies comprises a frequency between 800 and 900 megahertz as stated in column 5, lines 50-53.

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11. With regards to claims 4 and 18, Itaka et al. discloses a module wherein said shell comprises a common base that supports said first and second SAW circuits as shown in Figure 10.

12. With regards to claims 5 and 19, Takado discloses a module comprising a lid (21) coupled to said shell to form a hermetic enclosure (as clearly stated in the abstract) that surrounds said first and second SAW circuits.

13. With regards to claims 6 and 20, Itaka et al. discloses a module wherein said first and second SAW circuits are located on a common piezoelectric substrate (62₃) as shown in Figure 10.

14. With regards to claims 7 and 21, Itaka et al. discloses a module comprising a crosstalk shield (62₂) located between said first and second SAW circuits as shown in Figure 17.

15. Claims 3 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,939,817 to Takado in view of U.S. Patent No. 5,786,738 to Itaka et al. as applied to claims 1, 2, 4-7, 15, 16 and 18-21 above, and further in view of common knowledge in the art.

Takado in view of Itaka et al. discloses the claimed invention except for a module wherein said second band of communications frequencies comprises a frequency between 1800 and 1900 megahertz.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a SAW circuit having a frequency operating range between 1800 and 1900 megahertz as the second SAW circuit of the claimed invention, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

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Conclusion


16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Néstor R. Ramírez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas
March 7, 2002


NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800